



## How to analyse markets using innovation data – *Video Transcript*

### Using research for market insights

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#### Video 2: Using research for market insights

*Presenter:* Welcome back to our course on analysing markets using innovation data. In part two of this video, we turn our attention to using research to compile market insights. In this video, we will cover:

- The importance of a clear definition for your study
- How to use patents to inform a technology definition
- The use of keyword analysis
- An introduction to CPCs and IPCs
- Data points available for analysis
- How to integrate regional analysis into your conclusions
- And... what is a timeline of technology?

Before that, let's start with some definitions.

#### Defining the technology area

*Arun:* If you define the technology area clearly and sufficiently, it will enable you to keep focus throughout the study and ensure that you get the results that you want. So, it allows you to be a bit more targeted about the analysis that you want to perform.

So because patents are a source of legal, commercial and technical information, they're actually really useful to understand how the technology may be referred to. So particularly when you are looking within the abstract, or the claims sections of a patent document, you're understanding whether there's similarities between your understanding of the technology area and how it may be drafted in a published application or granted patent.

## Keyword analysis

Keyword analysis gives you an understanding of how people in that field are perceiving the technology area, so particularly when we look in the 'Description' section of a patent document, it tells you everything in the art that has come before that, and so that really helps inform your analysis. You're also seeing if there are potential applications of that technology, as well, that might be disclosed in the 'Claims' section.

## Keyword analysis in practice

There are a variety of tools that you can use. The one that I tend to go to a lot of the time is, if you're working with patent metadata, you may want to take the text from the 'Abstract' and 'Claims' section of a patent and use a word cloud tool to determine what are the most frequently occurring terms within that dataset – and that itself can help improve the query that you're using to retrieve data.

So, if you haven't considered the application of AI in a particular technology area, it may flag for example the keyword 'transport' and then you know that you might want to extend the scope of your analysis to include those kind of end uses.

## CPCs and IPCs

CPCs and IPCs are technology classifications that are applied by the patent bodies, so particularly WIPO, the EPO and the national patent offices – and it's really the closest that we can get to an objective taxonomy of patent data. So, if I'm trying to understand from a large dataset, what are the trends within that particular technology space and what are the sub-trends within that, then IPCs and CPCs can be a really good indication. So, as I say, it's an objective measure – you can also look more subjectively [at] creating queries that are more aligned to areas that you want to look into, but it's a really good starting point.

## How to interpret a growth curve

The typical analysis that we would usually conduct would be looking at filing velocity, so have patent applications changed over time? And then looking for jurisdictional breakdowns of that data, and, as I mentioned also looking at technology classifications. When you're looking at those trends, in particular when you're looking at the filing trend or the application trend, you have to take it with a pinch of salt – it's a really good indication of how robust R&D or innovation might be in that particular area, but it also doesn't operate in a vacuum as well – so you'll want to understand the broader context behind why that particular area might be growing or declining and what might be influential in determining that.

So, particularly when we're looking at filing velocity, if you are looking at a very hot topic area, you may find that there's a drop in terms of patenting activity in the last three to five years. What we typically find with that type of trend is that the manufacturing lull within APAC is responsible for that. So, an additional piece of analysis that we might do, would be to look at those specific jurisdictions to see how influential that regional data is in affecting the trend line. Another piece of analysis we might do is very simply looking at mentions of a particular technology within Google searches or within scientific publications – and repurposing that on top of the filing trend to see if there's any relationship between public interest and filing patent applications.

## How to use regional trends

First of all, it can be a way of you focusing your analysis, so if you're dealing with a large volume of data, but you're only operating within particular jurisdictions, you may want to refine the scope of your analysis down to a specific country or jurisdiction of interest. The second factor that I take into account is that, those countries are a good indication of how favourable the conditions are for R&D in that particular environment.

So, is there the correct legal and regulatory framework in place? Are there any patentability issues that are deterring people from filing patent applications in that specific territory?

## A timeline of technology

So, a timeline of technology is about having a notional idea of what is the past, present and future of a particular technology. The type of data sources that you would want to incorporate would be: are there any industrial shifts, or transformations that have occurred that are quite significant that would impact that particular technology? Are there any prolific patents that you're aware of that will have changed the shape of the landscape? And are there any significant mergers and acquisitions or new companies or new entrants that are entering this market space?

*Presenter:* Thanks again Arun. Don't forget to join us in video 3, in which we'll look at using research results to evaluate threats and opportunities. But in the meantime, thanks for watching.